Transmission Expansion Advisory Committee – PPL Supplemental Projects

October 8th, 2025

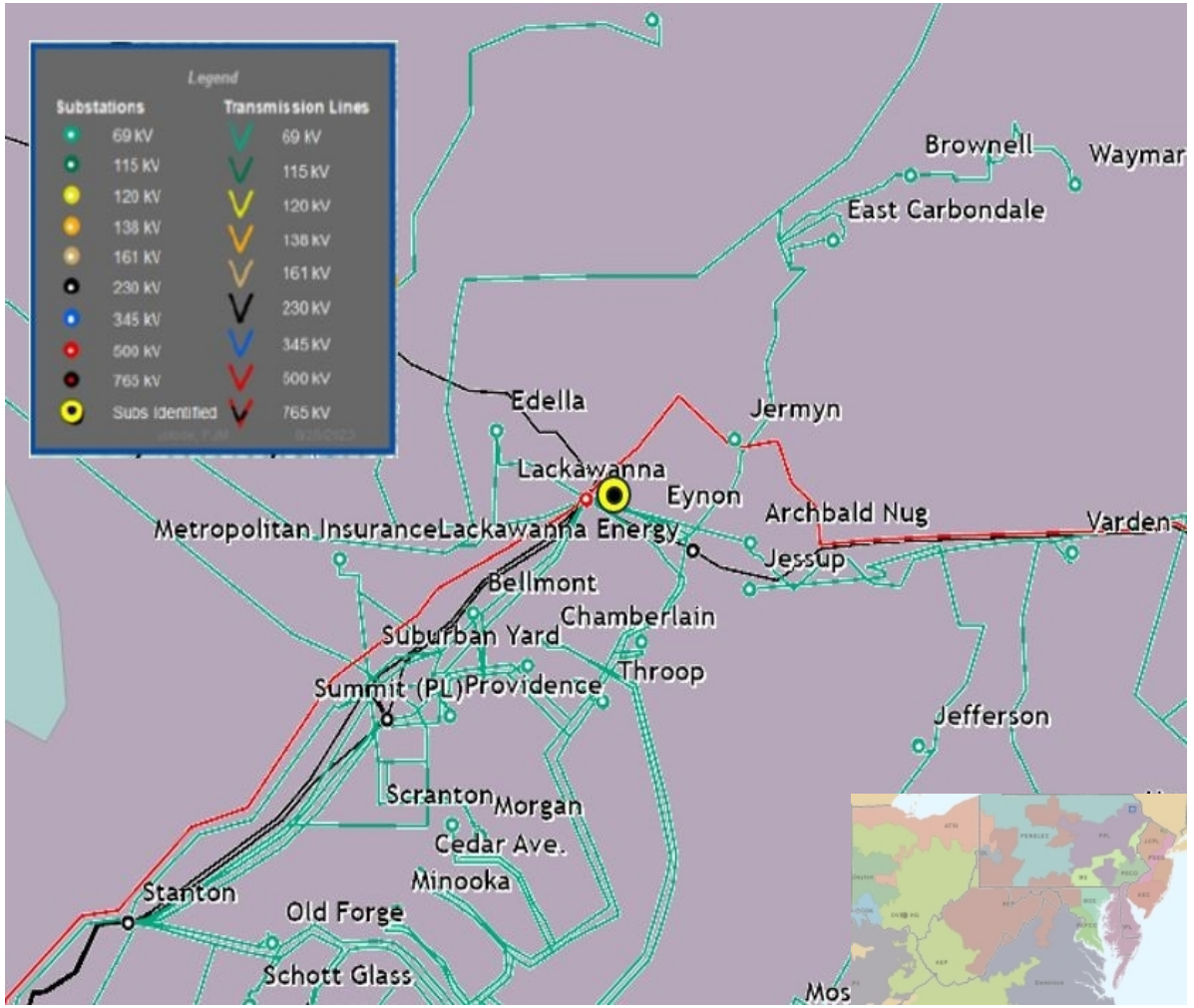
Solutions

Stakeholders must submit any comments within 10 days of this meeting in order to provide time necessary to consider these comments prior to the next phase of the M-3 process

Need Number: PPL-2025-0013
Process Stage: Solution Meeting TEAC - 10/08/2025
Previously Presented: Need Meeting 09/09/2025
Project Driver: Customer Service
Specific Assumption References:
PPL 2025 Annual Assumptions

Problem Statement:
A customer has submitted a request to have their facility served from a 230kV source in Lackawanna, PA. The total facility load is approximately 1,400 MW (2031). The requested in service date is 07/2028

Initial In-Service 2028 Load: 200 MW
Projected 2030 Load: 1,200 MW

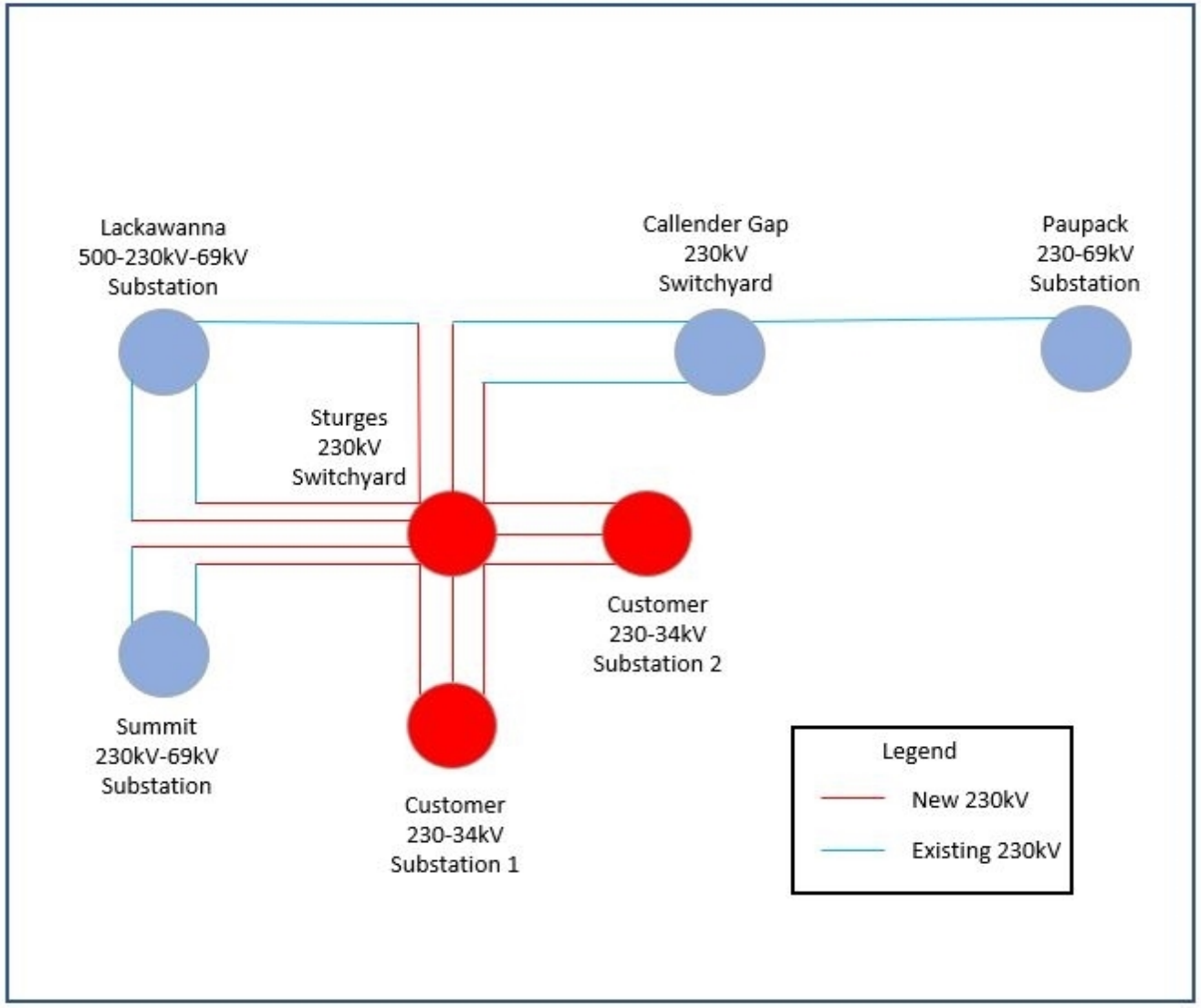


PPL Transmission Zone M-3 Process
Lackawanna, PA

Need number(s): PPL-2025-0013
Process Stage: Solution Meeting TEAC - 10/08/2025
Proposed Solution:
Sturges 230kV Switchyard: Install an eight bay BAAH 230kV switchyard with a 125MVAR Capacitor banks. Estimated Cost: $50 M
Bifurcate Summit - Lackawanna #1 & #2 230kV lines: Bifurcate Summit - Lackawanna #1 & #2 230kV lines into the new Sturges 230kV switchyard (~0.9 miles). Rebuild the ~0.2 mile section of SUMT-LACK #1 & #2 from bifurcation point to Lackawanna 230kV yard. Estimated Cost: $9.9 M
Bifurcate Lackawanna - Callender Gap #1 230kV line: Bifurcate Lackawanna - Callender Gap #1 230kV line into the new Sturges 230kV switchyard (~0.1 miles). Estimated Cost: $3 M
Lackawanna - Callender Gap #2 230kV Line: Terminate the Lackawanna - Callender Gap #2 line (from PPL-2025-0005) at Sturgis instead of Lackawanna. Estimated Cost: $2.5 M
Lackawanna 230kV yard: Replace one 230kV breaker and two MODs in Bay #3 at Lackawanna 230kV. Estimated Cost: $1.5 M
Sturges 230kV Customer Lead Lines: Install two 230kV lead lines for approximately 0.2 miles from Sturges 230kV switchyard to customer sub #1 and install four 230kV lead lines for approximately 0.6 miles from Sturges 230kV switchyard to customer sub #2. (six circuits total). Estimated Cost: $8 M

Transmission Cost Estimate: $74.9 M
Alternatives Considered:
Expanding the existing Lackawanna 230kV yard is infeasible due to amount of grading and relocations of assets required.

Projected In-Service: 07/30/2028
Project Status: Conceptual



PPL Transmission Zone: Supplemental
Gordon, PA

Need Number: PPL-2025-0008

Process Stage: Solution Meeting TEAC – 10/8/2025

Previously Presented: Need Meeting 05/06/2025

Supplemental Project Driver: Customer Service

Specific Assumption References:

PPL 2025 Annual Assumptions

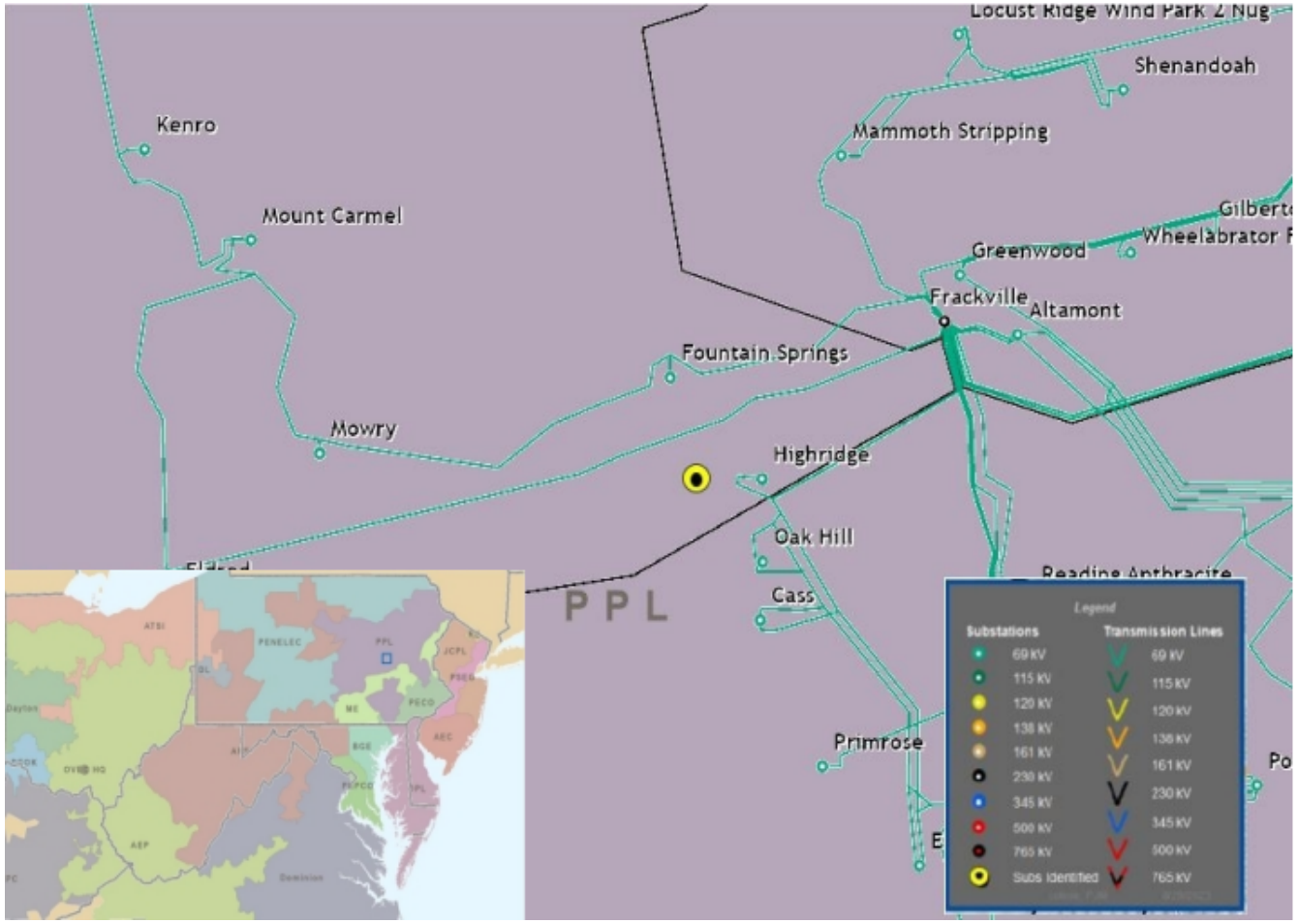
Problem Statement:

A customer has submitted a request to have their facility served from a 230kV source near Frackville, PA. The total facility load is approximately 600MW (2029). The requested in-service date is 05/2027.

Initial In-Service 2027 Load: 290MW

Projected 2028 Load: 300 MW

Projected 2029 Load: 600 MW



Need Number: PPL-2025-0008
Process Stage: Solution Meeting TEAC – 10/08/2025
Proposed Solution:
Gordon 230kV Switchyard: Install a four bay BAAH 230kV switchyard with an 80MVAR Capacitor bank. Estimated Cost: $45 M
Eldred - Frackville 230kV Line: Bifurcate the Eldred - Frackville 230kV Line and terminate at the new Gordon230kV switchyard. Extend lines approximately 0.4 miles into the new Gordon 230kV switchyard. Estimated Cost: $4 M
Sunbury 230kV Yard: Build out bay #2 in the 230kV GIS with two new breakers and associated equipment. Re-terminate the SUNB-SUSQ #1 230kV line from Bay #3 to Bay #2. Estimated Cost: $7 M
Eldred 230kV Yard: Install two new terminals at Eldred Substation by building out two bays in DBDB future BAAH arrangement. Install total of four 230kV breakers. Estimated Cost: $4.5 M
Frackville 230kV Yard: Install one new 230kV breaker, 230kV dead-end, and ancillary equipment in bay #3 at Frackville 230kV Yard. Estimated Cost: $2 M
Sunbury - Eldred 230kV Line: Rebuild the existing Sunbury - Eldred 230kV Line to double circuit 230kV from Sunbury to Eldred (24.8 miles). Estimated Cost: $112.5 M
Eldred - Frackville 230kV Line (ELDR to GORD): Rebuild the existing Eldred - Frackville 230kV Line to double circuit 230kV from Eldred to Gordon (7.3 miles).
Estimated Cost: $32.85 M
Eldred - Frackville 230kV Line (GORD to FRAC): Rebuild the existing Eldred - Frackville 230kV Line to double circuit 230kV from Gordon to Frackville (4.4 miles).
Estimated Cost: $19.8 M
Gordon 230kV Customer Lead Lines: Install three 230kV lead lines for approximately 0.1 miles from Gordon 230kV switchyard to the customer facility.
Estimated Cost: $4 M

Transmission Cost Estimate: $231.65M

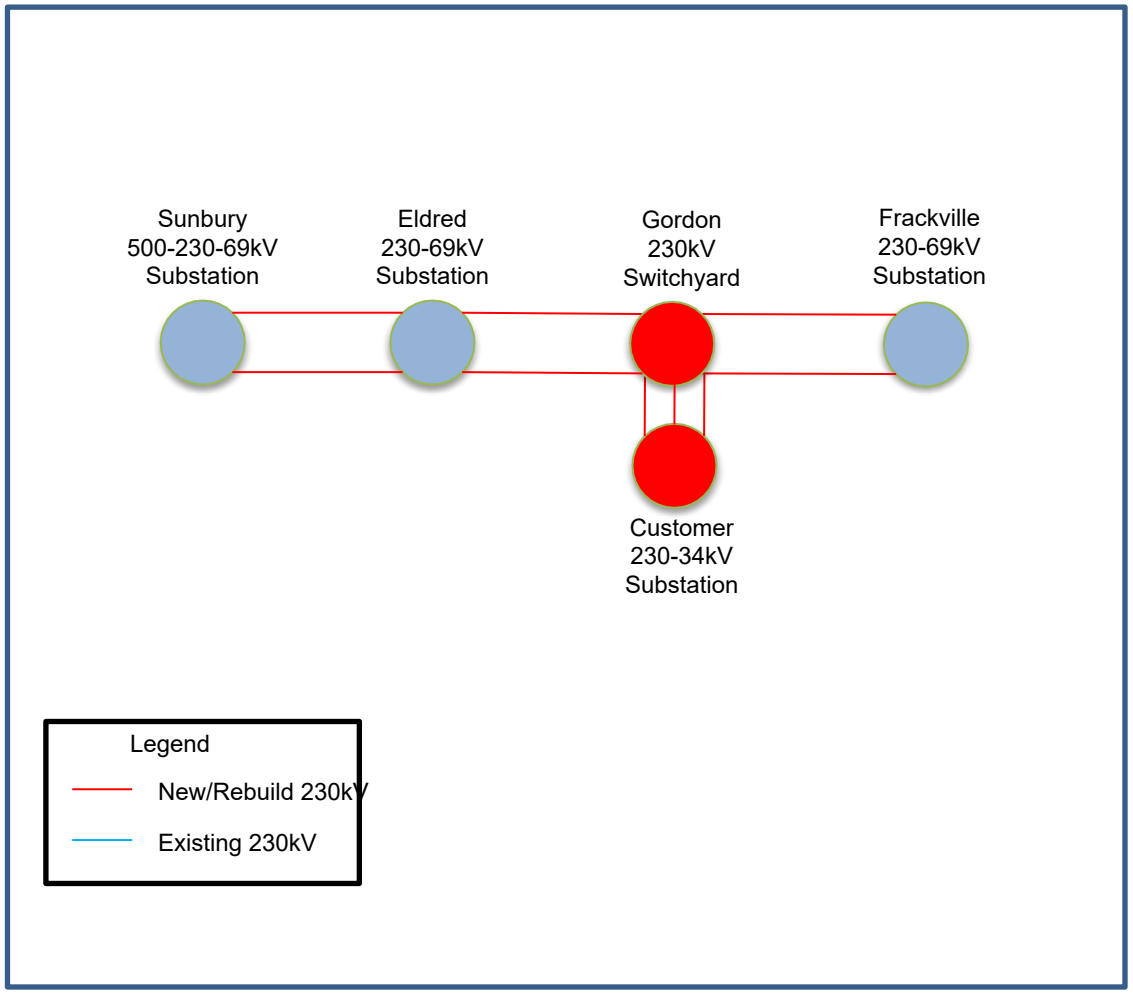
Alternatives Considered:

1. No functional alternatives as the customer site is immediately adjacent to the ELDR-FRAC 230kV line.

Projected In-Service: 5/30/2027

Project Status: Conceptual

Model: 2028



Questions?

Appendix

High level M-3 Meeting Schedule

Assumptions

Activity	Timing
Posting of TO Assumptions Meeting information	20 days before Assumptions Meeting
Stakeholder comments	10 days after Assumptions Meeting

Needs

Activity	Timing
TOs and Stakeholders Post Needs Meeting slides	10 days before Needs Meeting
Stakeholder comments	10 days after Needs Meeting

Solutions

Activity	Timing
TOs and Stakeholders Post Solutions Meeting slides	10 days before Solutions Meeting
Stakeholder comments	10 days after Solutions Meeting

Submission of Supplemental Projects & Local Plan

Activity	Timing
Do No Harm (DNH) analysis for selected solution	Prior to posting selected solution
Post selected solution(s)	Following completion of DNH analysis
Stakeholder comments	10 days prior to Local Plan Submission for integration into RTEP
Local Plan submitted to PJM for integration into RTEP	Following review and consideration of comments received after posting of selected solutions

Revision History

9/26/2025 – V1 – Original version posted to pjm.com